FINANCIAL ASSISTANCE FUNDING OPPORTUNITY ANNOUNCEMENT



U.S. Department of Energy

Office of Science, Office of Nuclear Physics

Annual Notice for Continuation of Availability of Grants and Cooperative Agreements for Nuclear Physics

Funding Opportunity Number: DE-PS02-06ER06-23

Announcement Type: Initial

CFDA Number: 81.049

ISSUE DATE: August 4, 2006

PREAPPLICATION DUE DATE: Not Required

LETTER OF INTENT DUE DATE: October 1, 2006

APPLICATION DUE DATE: November 1, 2006, 8:00 p.m. Eastern Time

PROGRAM MANAGER: Dr. Eugene Henry

Physics Research Division

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NOTE: NEW REQUIREMENTS FOR GRANTS.GOV

Where to Submit:

Applications must be submitted through Grants.gov to be considered for award.

Registration Requirements:

There are several one-time actions you must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register with Grants.gov). See www.grants.gov/GetStarted. Use the Grants.gov Organization Registration Checklist at www.grants.gov/assets/OrganizationRegCheck.doc to guide you through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in the CCR registration process. Applicants, who are not registered with CCR and Grants.gov, should allow at least 14 days to complete these requirements. It is suggested that the process be started as soon as possible.

Questions:

Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. Part VII of this announcement explains how to submit other questions to the U.S. Department of Energy.

Application Receipt Notices

After an application is submitted, the Authorized Organization Representative (AOR) will receive a series of four e-mails. It is extremely important that the AOR <u>watch</u> for and <u>save</u> each of the emails. It may take up to two (2) business days from application submission to receipt of email Number 2. You will know that your application has reached DOE when the AOR receives email Number 4. You will need the Submission Receipt Number (email Number 1) to track a submission. The titles of the four e-mails are:

Number 1 - Grants.gov Submission Receipt Number

Number 2 - Grants.gov Submission Validation Receipt for Application Number

Number 3 - Grants.gov Grantor Agency Retrieval Receipt for Application Number

Number 4 - Grants.gov Agency Tracking Number Assignment for Application Number

After receipt of email Number 4, you can view your application at DOE's e-Center, http://e-center.doe.gov. A User Id and password are required. If you already have a User Id and password you do not need to re-register.

VERY IMPORTANT – Download PureEdge Viewer:

In order to download the application package, you will need to install PureEdge Viewer. This small, free program will allow you to access, complete, and submit applications electronically and securely. For a free version of the software, visit the following web site: www.grants.gov/DownloadViewer.

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PART I – FUNDING OPPORTUNITY DESCRIPTION

SUMMARY: The Office of Nuclear Physics (NP), within the Office of Science (SC) of the Department of Energy (DOE), hereby announces its continuing interest in receiving **NEW** applications for support of research in Nuclear Physics.

On September 3, 1992, DOE published in the Federal Register the Office of Energy Research Financial Assistance Program (now called the Office of Science Financial Assistance Program), 10 CFR Part 605, Final Rule, which contained a solicitation for this program. The purpose of this solicitation is to request that all **NEW** applications for the Office of Nuclear Physics be submitted in response to this notice instead of the "Annual Notice - Continuing Solicitation for all Office of Science Programs". If the deadline of this solicitation is not met, the application will probably not be considered for funding until the next Fiscal Year. This does not change the process for renewal and supplemental applications. All **renewal and supplemental** applications should still be submitted in response to the "Annual Notice - Submission of Renewal and Supplemental Applications for Office of Science Grants". Information about submission of applications, eligibility, limitations, evaluation and selection processes and other policies and procedures are specified in 10 CFR Part 605 which can be accessed at: http://www.science.doe.gov/grants/. Additional requirements for applicants to the Office of Nuclear Physics can be found at http://www.sc.doe.gov/np/grants/grants.html.

SUPPLEMENTARY INFORMATION: The following program descriptions are offered to provide more in-depth information on scientific and technical areas of interest to the Office of Science.

Nuclear Physics

The Nuclear Physics program supports basic research, technical developments and world-class accelerator facilities to expand our fundamental understanding of the interactions and structures of atomic nuclei and nuclear matter, and an understanding of the forces of nature as manifested in nuclear matter. Today, the reach of nuclear physics extends from the quarks and gluons that form the substructure of the once-elementary protons and neutrons, to the most dramatic of cosmic events-supernovae. These and many other diverse activities are driven by five broad questions articulated in 2002 by the Nuclear Science Advisory Committee (NSAC) in the Opportunities in Nuclear Science: A Long- Range Plan for the Next Decade. The four subprogram areas and their objectives are organized around answering these five key questions. Research activities supported by the Office of Nuclear Physics are aligned with and contribute to the overall progress of the following long term performance measures:

- Make precision measurements of fundamental properties of the proton, neutron and simple nuclei for comparison with theoretical calculations to provide a quantitative understanding of their quark substructure.
- Recreate brief, tiny samples of hot, dense nuclear matter to search for the quark-gluon plasma and characterize its properties.
- Investigate new regions of nuclear structure, study interactions in nuclear matter like those occurring in neutron stars, and determine the reactions that created the nuclei of atomic elements inside stars and supernovae.

- Measure fundamental properties of neutrinos and test fundamental symmetries of nature that are relevant to the field of nuclear physics or that use the atomic nucleus as a laboratory.
- Contribute to the theoretical understanding of any of the above.

The program is organized into the following four subprograms:

(a) Medium Energy Nuclear Physics

This subprogram supports experimental research primarily at the Thomas Jefferson National Accelerator Facility and with the polarized proton collision program at the Relativistic Heavy Ion Collider (RHIC-Spin), directed at answering the first key question: What is the structure of the nucleon? Detailed investigations of the structure of the nucleon are aimed at understanding how these basic building blocks of matter are constructed from the elementary quarks and gluons of Quantum Chromo-Dynamics (QCD) and how complex interactions among them generate all the properties of the nucleon, including its electromagnetic and spin properties. New knowledge in this area would also allow the nuclear binding force to be described in terms of QCD, thus providing a path for understanding the structure of atomic nuclei from first principles.

Program Contact: Dr. W. Bradford Tippens (301) 903-3904

(b) Heavy Ion Nuclear Physics

This subprogram supports experimental research primarily at the Relativistic Heavy Ion Collider (RHIC) directed at answering the second question: What are the properties of hot nuclear matter? At extremely high temperatures, such as those that existed in the early universe immediately after the "Big Bang," normal nuclear matter is believed to revert to its primeval state called the quark-gluon plasma. This research program aims to recreate extremely small and brief samples of this high energy density phase of matter in the laboratory by colliding heavy nuclei at relativistic energies. At much lower temperatures, nuclear matter passes through another phase transition from a Fermi liquid to a Fermi gas of free roaming nucleons; understanding this phase transition is also a goal of the subprogram.

Program Contact: Dr. Gulshan Rai (301) 903-4702

(c) Low Energy Nuclear Physics

This subprogram supports experimental research directed at understanding the remaining three questions: What is the structure of nucleonic matter? Forefront nuclear structure research lies in studies of nuclei at the limits of excitation energy, deformation, angular momentum, and isotopic stability. The properties of nuclei at these extremes are not known and such knowledge is needed to test and drive improvement in nuclear models and theories about the nuclear many-body system. What is the nuclear microphysics of the universe? Knowledge of the detailed nuclear structure, nuclear reaction rates, half-lives of specific nuclei, and the limits of nuclear existence at both the proton and neutron drip lines is crucial for understanding the nuclear astrophysics processes responsible for the production of the chemical elements in the universe, and the explosive dynamics of supernovae. Is there new physics beyond the Standard Model? Studies of fundamental interactions and symmetries, including those of neutrino oscillations, are indicating that our current "Standard Model" theory which explains what the universe is and what holds it together is incomplete, opening up possibilities for new discoveries by precision experiments.

Program Contact: Dr. Eugene A. Henry (301) 903-6093

(d) Nuclear Theory (including the Nuclear Data subprogram)

Progress in nuclear physics, as in any science, depends critically on improvements in the theoretical techniques and on new insights that will lead to new models and theories that can be applied to interpret experimental data and predict new behavior. The Nuclear Theory program supports theoretical research directed at understanding all five of the central questions identified in the NSAC 2002 Long Range Plan.

Included in the theory program are the activities that are aimed at providing information services on critical nuclear data and have as a goal the compilation and dissemination of an accurate and complete nuclear data information base that is readily accessible and user oriented.

Program Contact: Dr. Sidney A. Coon (301) 903-7878

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT.

DOE anticipates awarding grants and cooperative agreements under this program announcement.

B. ESTIMATED FUNDING.

It is anticipated that approximately \$60 million will be allocated for all Nuclear Physics grant and cooperative agreement awards in Fiscal Year 2007. A total of approximately **25%-30%** of that amount will be available for new awards under this notice and for renewals of existing grants in response to the "Annual Notice - Continuing Solicitation for all Office of Science Programs". All new grant applications received before November 1, 2006 under this solicitation will be acted on during the fiscal year. The DOE is under no obligation to pay for any costs associated with the preparation or submission of an application. DOE reserves the right to fund, in whole or in part, any, all, or none of the applications submitted in response to this Notice.

C. MAXIMUM AND MINIMUM AWARD SIZE.

Ceiling (i.e., the maximum amount for an individual award made under this announcement): None

Floor (i.e., the minimum amount for an individual award made under this announcement): None

D. EXPECTED NUMBER OF AWARDS.

The actual number of awards will be determined by the number of excellent applications and the total amount of funds available for this program.

E. ANTICIPATED AWARD SIZE.

N/A

F. PERIOD OF PERFORMANCE.

N/A

G. TYPE OF APPLICATION.

N/A

PART III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS.

All types of applicants are eligible to apply, except other Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING

Cost sharing is not required.

C. OTHER ELIGIBILITY REQUIREMENTS.

N/A

PART IV – APPLICATION AND SUBMISSION INFORMATION

A. ADDRESS TO REQUEST APPLICATION PACKAGE.

Application forms and instructions are available at Grants.gov. To access these materials, go to http://www.grants.gov, select "Apply for Grants", and then select "Download Application Package". Enter the CFDA and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to download the application package. NOTE: You will not be able to download the Application Package unless you have installed PureEdge Viewer (See: http://www.grants.gov/DownloadViewer).

B. LETTER OF INTENT AND PREAPPLICATION.

1. Letter of Intent.

A <u>Letter-of-Intent</u> (LOI), consisting of information on collaborators and a brief summary of proposed research (one paragraph), is encouraged (but not required) and should be submitted by October 1, 2006, by e-mail directly to the Office of Nuclear Physics at one of the addresses listed above under Supplementary Information.

2. Preapplication.

Preapplications are not required.

C. CONTENT AND FORM OF APPLICATION – SF 424 (R&R)

You must complete the mandatory forms and any applicable optional forms (e.g., SF-LLL-Disclosure of Lobbying Activities) in accordance with the instructions on the forms and the additional instructions below. Files that are attached to the forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement.

1. SF 424 (R&R)

Complete this form first to populate data in other forms. Complete all the required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the "Help Mode" (Icon with the pointer and question mark at the top of the form). The list of certifications and assurances referenced in Field 18 can be found on the Applicant and Recipient Page at http://grants.pr.doe.gov.

2. RESEARCH AND RELATED Other Project Information.

Complete questions 1 through 5 and attach files. The files must comply with the following instructions:

Project Summary/Abstract (Field 6 on the Form)

The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to publication. It should be a single page that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major

participants (for collaborative projects). This document must not include any proprietary or sensitive business information as the Department may make it available to the public. The project summary must not exceed 1 page when printed using standard 8.5" by 11" paper with 1" margins (top, bottom, left and right) with font not smaller than 11 point. To attach a Project Summary/Abstract, click "Add Attachment."

Project Narrative (Field 7 on the form)

The project narrative should be printed using standard 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right). The font must not be smaller than 11 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application, because the information contained in these sites will not be reviewed. **All applications should be in a single PDF file.** The PDF file may also include a few selected publications in an Appendix as background information. In addition, please limit biographical and publication information for the principal investigator and key personnel to no more than two pages each. Letters from collaborators should also be included, if applicable. See below for detailed requirements regarding the Project Description, Biographical Sketch and Collaborators, etc. To attach a Project Narrative, click "Add Attachment."

The Project Description must be no more than 15 pages in total, with an additional five pages allowed for each additional senior researcher on the proposal. The authors of the application can organize the Project Description text at their discretion, subject to the requirements below. The Project Description should provide a more detailed discussion than that of the Project Introduction of the work to be undertaken and should include a discussion of the objectives in relation to:

- Long-term goals, particularly in relationship to the NSAC Long Range Plan and Performance Measures for Nuclear Physics.
- Present state of knowledge of the field.
- Any other work by the PI not supported by this grant.
- A general plan of work of the activities to be undertaken over the grant period (typically 3 years) and an adequate description of methodology and necessary resources to convince a reviewer of its feasibility.
- Necessary information that explicitly justifies the requested resources (manpower, equipment, travel, etc.).
- Institutional support and resources.
- A brief discussion of how the work will contribute to the education of students, if applicable, and identify any potential benefits to society. Include career history of recent research associates and graduate students.

Student Tracking Information

The Office of Nuclear Physics needs to keep track of graduate students supported on research grants. Please provide, in tabular form, the following information for each graduate student receiving (in the case of a renewal proposal), or expected to receive (in

the case of a new proposal) any support from this grant, during this funding period:

Name of the student

- Date (mm/yyyy) when the student entered graduate school at the host institution
- Date (mm/yyyy) on which the student joined the research group
- Date (mm/yyyy) when the student graduated, or is expected to graduate.

The Research & Related Other Project Information form of the Grants.gov template should be completed in the following manner. **Project Narrative is Field 7 on the form.**

The first page of your narrative <u>must include the following information:</u>

Applicant/Institution:

Street Address/City/State/Zip:

Principal Investigator:

Postal Address:

Telephone Number:

Email:

DOE/Office of Science Program Office:

DOE/Office of Science Program Office Technical Contact:

Is this a Collaboration? If yes, please list ALL Collaborating Institutions/PIs and indicate which ones will also be submitting applications. Also indicate the PI who will be the point of contact and coordinator for the combined research activity.

The project narrative must include: (and any other items as listed in the Funding Opportunity Description above)

• Project Objectives.

This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.

Evaluation Phase

This section must include a plan and metrics to be used to assess the success of the project.

• Project Performance Site

Indicate the primary site where the work will be performed. If a portion of the work will be performed at any other sites, identify those sites, also.

• Background and Recent Accomplishments

• Biographical Sketch Appendix

Provide a biographical sketch for the project director/principal investigator (PD/PI) and each senior/key person listed in Section A on the R&R Budget form. **Provide the biographical sketch information as an appendix to your project narrative. Do not attach a separate file.** The biographical sketch appendix will not count in the project narrative page limitation. The biographical information for each person must not exceed 3 pages when printed on 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right) with font not smaller than 11 point and must include:

<u>Education and Training</u>. Undergraduate, graduate and postdoctoral training, provide institution, major/area, degree and year.

<u>Research and Professional Experience</u>: Beginning with the current position list, in chronological order, professional/academic positions with a brief description.

<u>Publications</u>. Provide a list of up to 10 publications most closely related to the proposed project. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address if available electronically.

Patents, copyrights and software systems developed may be provided in addition to or substituted for publications.

<u>Synergistic Activities</u>. List no more than 5 professional and scholarly activities related to the effort proposed.

o <u>Identification of Potential Conflicts of Interest or Bias in Selection of Reviewers.</u> Provide the following information in this section:

Collaborators and Co-editors: List in alphabetical order all persons, including their current organizational affiliation, who are, or who have been, collaborators or co-authors with you on a research project, book or book article, report, abstract, or paper during the 48 months preceding the submission of this application. Also, list any individuals who are currently, or have been, co-editors with you on a special issue of a journal, compendium, or conference proceedings during the 24 months preceding the submission of this application. If there are no collaborators or co-editors to report, state "None."

<u>Graduate and Postdoctoral Advisors and Advisees</u>: List the names and current organizational affiliations of your graduate advisor(s) and principal postdoctoral sponsor(s) during the last 5 years. Also, list the names and current organizational affiliations of your graduate students and postdoctoral associates during the past 5 years.

Current and Pending Support.

Provide a list of all current and pending support (both Federal and non-Federal) for the Project Director/Principal Investigator(s) (PD/PI) and senior/key persons, including subawardees, for ongoing projects and pending applications. For each organization providing support, show the total award amount for the entire award period (including indirect costs) and the number of person-months per year to be devoted to the project by the senior/key person. Concurrent submission of an application to other organizations for simultaneous consideration will not prejudice its review.

Bibliography & References Cited (Field 8 on the form)

Provide a bibliography of any references cited in the Project Narrative. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Include only bibliographic citations. Applicants should be especially careful to follow scholarly practices in providing citations for source materials relied upon when preparing any section of the application. In order to reduce the number of files attached to your application, please provide the Bibliography and References Cited information as an appendix to your project narrative. Do not attach a file in field 8. This appendix will not count in the project narrative page limitation.

Facilities & Other Resources (Field 9 on the form)

This information is used to assess the capability of the organizational resources, including subawardee resources, available to perform the effort proposed. Identify the facilities to be used (Laboratory, Animal, Computer, Office, Clinical and Other). If appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Describe other resources available to the project (e.g., machine shop, electronic shop) and the extent to which they would be available to the project. In order to reduce the number of files attached to your application, please provide the Facility and Other Resource information as an appendix to your project narrative. Do not attach a file in field 9. This appendix will not count in the project narrative page limitation.

Equipment (Field 10 on the form)

List major items of equipment already available for this project and, if appropriate identify location and pertinent capabilities. In order to reduce the number of files attached to your application, please provide the Equipment information as an appendix to your project narrative. Do not attach a file in field 10. This appendix will not count in the project narrative page limitation.

Other Attachment (Field 11 on the form)

If you need to elaborate on your responses to questions 1-5 on the "Other Project Information" document, **provide the information as an appendix to your project narrative.** Do not attach a file in field 11.

3. RESEARCH AND RELATED BUDGET.

Complete the Research and Related Budget form in accordance with the instructions on the form (Activate Help Mode to see instructions) and the following instructions. You must complete a separate budget for each year of support requested. The form will generate a cumulative budget for the total project period. You must complete all the mandatory information on the form before the NEXT PERIOD button is activated. You may request funds under any of the categories listed as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the

applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (See PART IV, G).

Budget Justification (Field K on the form).

Provide the required supporting information for the following costs (See R&R Budget instructions): equipment; domestic and foreign travel; participant/trainees; material and supplies; publication; consultant services; ADP/computer services; subaward/consortium/contractual; equipment or facility rental/user fees; alterations and renovations; and indirect cost type. Provide any other information you wish to submit to justify your budget request. If cost sharing is required, provide an explanation of the source, nature, amount and availability of any proposed cost sharing. Attach a single budget justification file for the entire project period in Field K. The file automatically carries over to each budget year.

4. R&R SUBAWARD BUDGET ATTACHMENT(S) FORM.

Budgets for Subawardees, other than DOE FFRDC Contractors. You must provide a separate cumulative R&R budget for each subawardee that is expected to perform work estimated to be more than \$100,000 or 50 percent of the total work effort (whichever is less). If you are selected for award, you must submit a multi-year budget for each of these subawardees (See Section IV.D for submission of Subawardees' multi-year budgets). Download the R&R Budget Attachment from the R&R SUBAWARD BUDGET ATTACHMENT(S) FORM and e-mail it to each subawardee that is required to submit a separate budget. Note: Subwardees must have installed PureEdge Viewer before they can complete the form. After the Subawardee has e-mailed its completed budget back to you, attach it to one of the blocks provided on the form. Use up to 10 letters of the subawardee's name (plus .xfd) as the file name (e.g., ucla.xfd or energyres.xfd).

5. SF-LLL Disclosure of Lobbying Activities

If applicable, complete SF- LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying."

D. SUBMISSIONS FROM SUCCESSFUL APPLICANTS.

You must provide a separate multi-year budget (i.e., a budget for each budget year of support requested) for each subaward file provided on the R&R Subaward Budget Attachment(s) Form (See Part IV, C.4)

The Department anticipates that no additional submissions will be required. However, it reserves the right to request additional or clarifying information for any reason deemed necessary.

E. SUBMISSION DATES AND TIMES.

1. Preapplication Due Date.

Preapplications are not required.

2. Letter of Intent Due Date.

A <u>Letter-of-Intent</u> (LOI), consisting of information on collaborators and a brief summary of proposed research (one paragraph), is encouraged (but not required) and should be submitted by October 1, 2006, by e-mail directly to the Office of Nuclear Physics at one of the addresses listed above under Supplementary Information.

3. Formal Applications.

Formal applications must be submitted prior to November 1 of the Fiscal Year for which funding is requested to permit timely consideration for award in that Fiscal Year. If this deadline is not met, the application will probably not be considered for funding until the next Fiscal Year. Any new applications not able to meet this deadline may be submitted in response to the "Annual Notice - Continuing Solicitation for all Office of Science Programs" mentioned above for consideration in the subsequent Fiscal year.

F. INTERGOVERNMENTAL REVIEW.

This program is subject to Executive Order 12372 (Intergovernmental Review of Federal Programs) and the regulations at 10 CFR Part 1005.

One of the objectives of the Executive order is to foster an intergovernmental partnership and a strengthened federalism. The Executive order relies on processes developed by State and local governments for coordination and review of proposed Federal financial assistance.

Applicants should contact the appropriate State Single Point of Contact (SPOC) to find out about, and to comply with, the State's process under Executive Order 12372. The names and addresses of the SPOCs are listed on the Web site of the Office of Management and Budget at http://www.whitehouse.gov/omb/grants/spoc.html.

G. FUNDING RESTRICTIONS.

<u>Cost Principles</u>. Costs must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR Part 600.

<u>Pre-award Costs</u>. Recipients may charge to an award resulting from this announcement preaward costs that were incurred within the ninety (90) calendar day period immediately preceding the effective date of the award, if the costs are allowable in accordance with the applicable Federal cost principles referenced in 10 CFR Part 600. Recipients must obtain the prior approval of the contracting officer for any pre-award costs that are for periods greater than this 90 day calendar period.

Pre-award costs are incurred at the applicant's risk. DOE is under no obligation to reimburse such costs if for any reason the applicant does not receive an award or if the award is made for a lesser amount than the applicant expected.

H. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

1. Where to Submit.

APPLICATIONS MUST BE SUBMITTED THROUGH GRANTS.GOV TO BE CONSIDERED FOR AWARD. Submit electronic applications through the "Apply for Grants" function at www.Grants.gov. If you have problems completing the registration process or submitting your application, call Grants.gov at 1-800-518-4726 or send an email to support@grants.gov.

2. Registration Process.

You must COMPLETE the one-time registration process (<u>all steps</u>) before you can submit your first application through Grants.gov (See www.grants.gov/GetStarted). We recommend that you start this process at least two weeks before the application due date. It may take 14 days or more to complete the entire process. Use the Grants.gov Organizational Registration Checklists at http://www.grants.gov/assets/OrganizationRegCheck.doc to guide you through the process. IMPORTANT: During the CCR registration process, you will be asked to designate an E-Business Point of Contact (EBIZ POC). The EBIZ POC must obtain a special password called "Marketing Partner identification Number" (MPIN).

Part V - APPLICATION REVIEW INFORMATION

A. CRITERIA

1. Initial Review Criteria.

Prior to a comprehensive merit evaluation, DOE will perform an initial review in accordance with 10 CFR 605.10(b).

2. Merit Review Criteria

Applications will be subjected to scientific merit review (peer review) and will be evaluated against the following criteria, listed in descending order of importance as found in 10 CFR Part 605.10 (d), the Office of Science Research Financial Assistance Program:

- 1. Scientific and/or technical merit of the project;
- 2. Appropriateness of the proposed method or approach;
- 3. Competency of applicant's personnel and adequacy of proposed resources;
- 4. Reasonableness and appropriateness of the proposed budget.

The evaluation will also include program policy factors such as the relevance of the proposed research to the Department's programmatic needs. The selected projects will be required to acknowledge support by DOE in all public communication of the research results.

B. REVIEW AND SELECTION PROCESS.

1. Merit Review.

Applications will be subjected to formal merit review (peer review) and will be evaluated against the evaluation criteria codified at 10 CFR 605.10(d) listed above, as well as the additional criteria listed above.

2. Selection.

The Selection Official will consider the merit review recommendation, program policy factors, and the amount of funds available.

3. Discussions and Award.

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600 and 605; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES.

The DOE expects to make awards in Fiscal Year 2007, subject to availability of appropriated funds.	ŀ

Part VI - AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES.

1. Notice of Selection.

DOE will notify applicants selected for award. This notice of selection is not an authorization to begin performance. (See Part IV.G with respect to the allowability of pre-award costs.)

Organizations whose applications have not been selected will be advised as promptly as possible. This notice will explain why the application was not selected.

2. Notice of Award.

A Notice of Financial Assistance Award issued by the contracting officer is the authorizing award document. It normally includes, either as an attachment or by reference: 1. Special Terms and Conditions; 2. Applicable program regulations, if any; 3. Application as approved by DOE; 4. DOE assistance regulations at 10 CFR Part 600, or, for Federal Demonstration Partnership (FDP) institutions, the FDP terms and conditions; 5. National Policy Assurances to Be Incorporated As Award Terms; 6. Budget Summary; and 7. Federal Assistance Reporting Checklist, which identifies the reporting requirements.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS.

1. Administrative Requirements.

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR Part 600 and 10 CFR Part 605 (See: http://ecfr.gpoaccess.gov), except for grants made to Federal Demonstration Partnership (FDP) institutions. The FDP terms and conditions and DOE FDP agency specific terms and conditions are located on the National Science Foundation web site at http://www.nsf.gov/awards/managing/fed dem part.jsp.

2. Special Terms and Conditions and National Policy Requirements.

Special Terms and Conditions and National Policy Requirements.

The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at http://grants.pr.doe.gov. The National Policy Assurances to Be Incorporated As Award Terms are located at http://grants.pr.doe.gov.

Intellectual Property Provisions.

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://www.gc.doe.gov/techtrans/sipp_matrix.html.

C. REPORTING.

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F4600.2, attached to the award agreement.

PART VII - QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

Questions regarding the content of the announcement must be submitted through the "Submit Question" feature of the DOE Industry Interactive Procurement System (IIPS) at http://e-center.doe.gov. Locate the program announcement on IIPS and then click on the "Submit Question" button. Enter required information. You will receive an electronic notification that your question has been answered. DOE will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website.

Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. DOE cannot answer these questions.

Questions regarding the program (**technical**) requirements should be directed to:

B. AGENCY CONTACTS:

For specific information on DOE interests, contact:

Dr. Eugene Henry Office of Nuclear Physics SC-26.1/Germantown Building U.S. Department of Energy 1000 Independence Ave., SW Washington, DC 20585-1290 Telephone (301) 903-3613

Fax: (301) 903-3833

E-mail address: Gene. Henry@science.doe.gov.

PART VIII - OTHER INFORMATION

A. MODIFICATIONS.

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE.

DOE reserves the right, without qualification, to reject any or all applications received in response to this announcement and to select any application, in whole or in part, as a basis for negotiation and/or award.

C. COMMITMENT OF PUBLIC FUNDS.

The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by other than the Contracting Officer, either explicit or implied, is invalid.

D. PROPRIETARY APPLICATION INFORMATION.

Patentable ideas, trade secrets, proprietary or confidentional commercial or financial information, disclosure of which may harm the applicant, should be included in an application only when such information is necessary to convey an understanding of the proposed project. The use and disclosure of such data may be restricted, provided the applicant includes the following legend on the first page of the project narrative and specifies the pages of the application which are to be restricted:

"The data contained in pages _____ of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data herein to the extent provided in the award. This restriction does not limit the government's right to use or disclose data obtained without restriction from any source, including the applicant."

To protect such data, each line or paragraph on the pages containing such data must be specifically identified and marked with a legend similar to the following:

"The following contains proprietary information that (name of applicant) requests not be released to persons outside the Government, except for purposes of review and evaluation."

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL.

In conducting the merit review evaluation, the Government may seek the advice of qualified non-Federal personnel as reviewers. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The applicant, by submitting its application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest and non-disclosure agreements prior to reviewing an application.

Non-Federal personnel conducting administrative activities must sign a non-disclosure agreement.

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM.

<u>Patent Rights</u>. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See "Notice of Right to Request Patent Waiver" in paragraph G below.)

Rights in Technical Data. Normally, the government has unlimited rights in technical data created under a DOE agreement. Delivery or third party licensing of proprietary software or data developed solely at private expense will not normally be required except as specifically negotiated in a particular agreement to satisfy DOE's own needs or to insure the commercialization of technology developed under a DOE agreement.

G. NOTICE OF RIGHT TO REQUEST PATENT WAIVER.

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this announcement, in advance of or within 30 days after the effective date of the award. Even if such advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver of the rights of the United States in identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the award. Any patent waiver that may be granted is subject to certain terms and conditions in 10 CFR 784.

Domestic small businesses and domestic nonprofit organizations will receive the patent rights clause at 37 CFR 401.14, i.e., the implementation of the Bayh-Dole Act. This clause permits domestic small business and domestic nonprofit organizations to retain title to subject inventions. Therefore, small businesses and nonprofit organizations do not need to request a waiver.

H. NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES N/A

I. REFERENCE MATERIAL N/A